LAPORAN RESMI

WORKSHOP ADMINISTRASI JARINGAN

PRAKTIKUM 6 – DHCP SERVER

Paulus Bimo Satrio Aji
2 D4 Teknik Informatika A
2110191019

PROGRAM STUDI D-IV TEKNIK INFORMATIKA
POLITEKNIK ELEKTRONIKA NEGERI SURABAYA

PERCOBAAN

1. Login sebagai root.

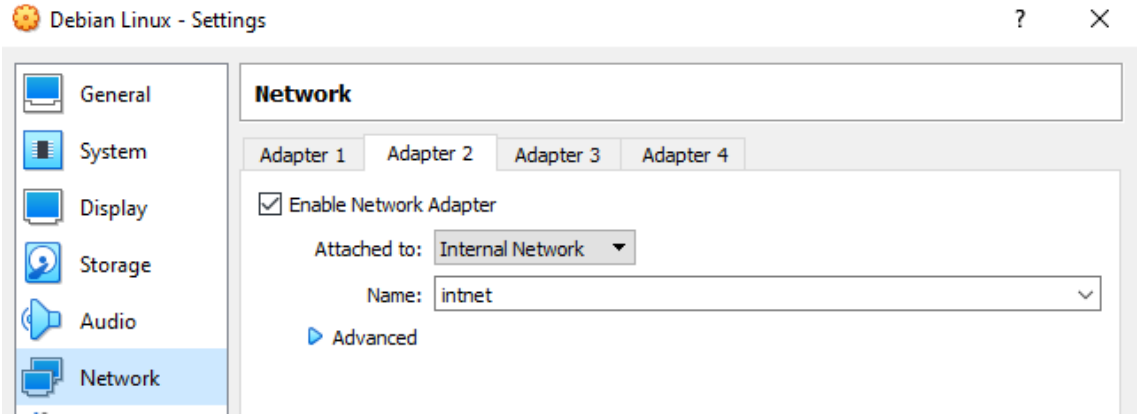
2. Catat IP Address dan nama host dari PC server dan juga client.
   #ip addr

```
bimo@bimo: ~
File  Edit  View  Search  Terminal  Help
root@bimo:/home/bimo# ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
       valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
       valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:3e:95:72 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
       valid_lft 86374sec preferred_lft 86374sec
    inet6 fe80::a00:27ff:fe3e:9572/64 scope link noprefixroute
       valid_lft forever preferred_lft forever
3: enp0s8: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:fb:ee:c6 brd ff:ff:ff:ff:ff:ff
```

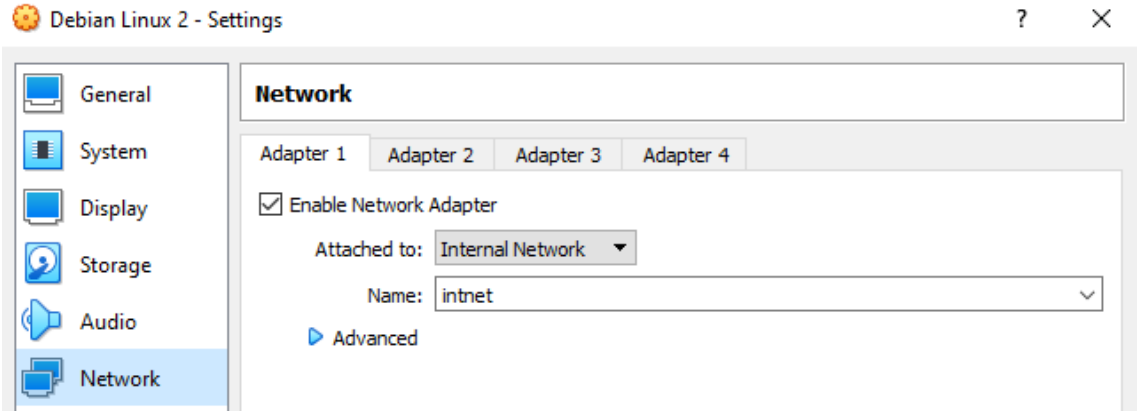
   Jawab: IP Address PC client adalah 10.0.2.15/24.

3. Pastikan komputer server terhubung dengan komputer client.
   Setting melalui menu Network pada VirtualBox. Pada PC server, atur Adapter 1 sebagai NAT dan Adapter 2 sebagai Internal Network. Pada PC client, atur Adapter 1 sebagai Internal Network.

   - Linux Server (Linux 1)

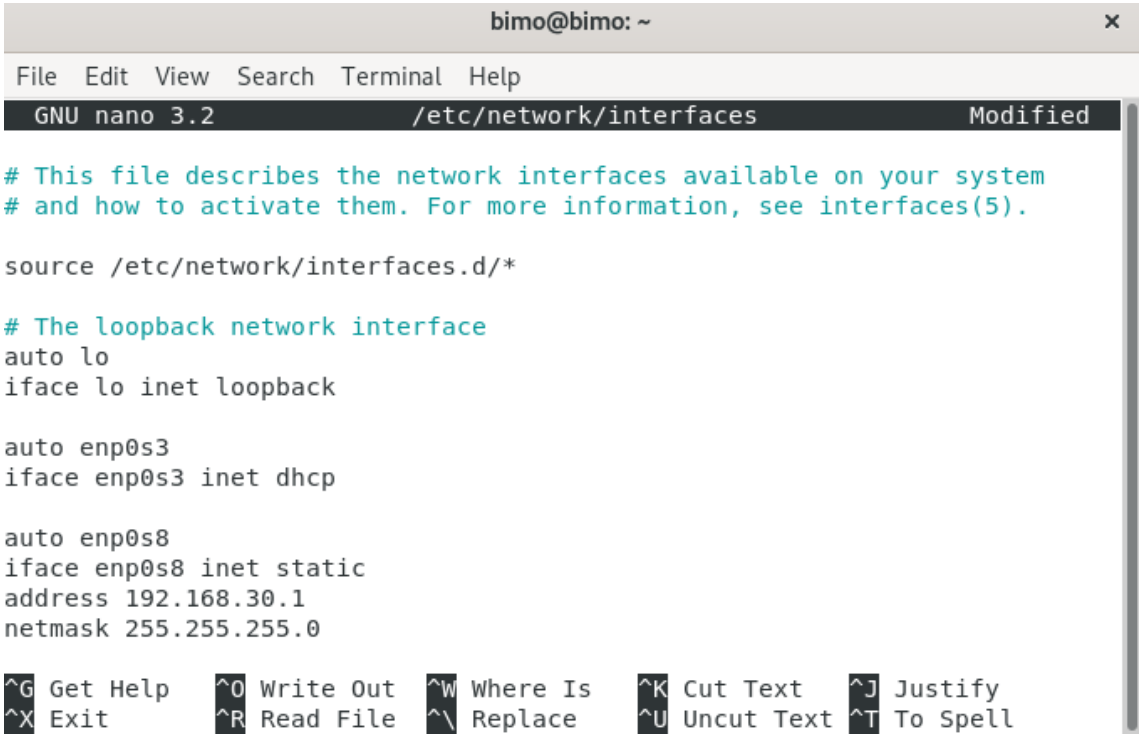


   - Linux Client (Linux 2)



Tambahkan konfigurasi untuk enp0s3 dan enp0s8. Atur enp0s3 sebagai dhcp dan enp0s8 sebagai static. IP address untuk enp0s8 bebas dan saya memilih acak IP 192.168.30.1 dengan netmask 255.255.255.0.

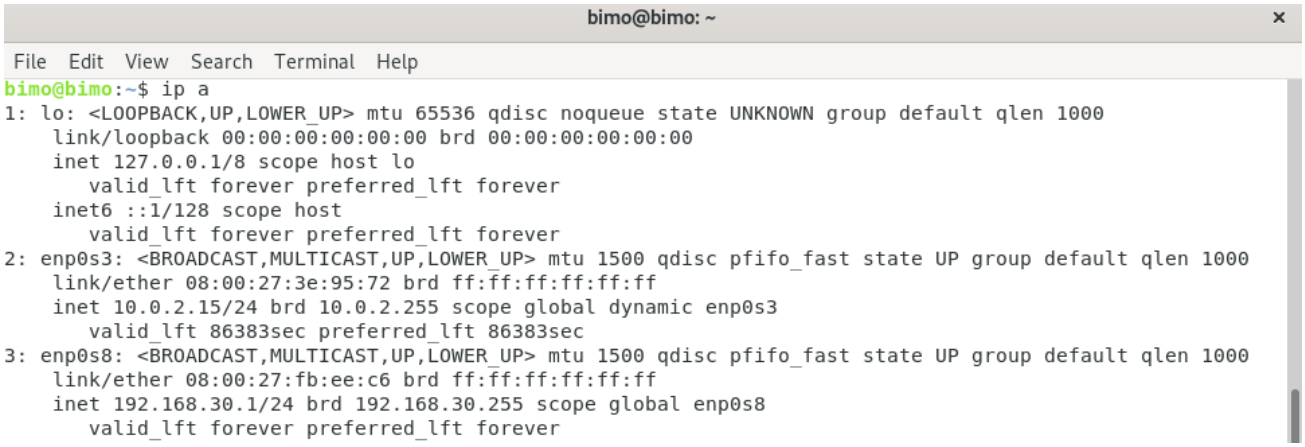
#nano /etc/network/interfaces



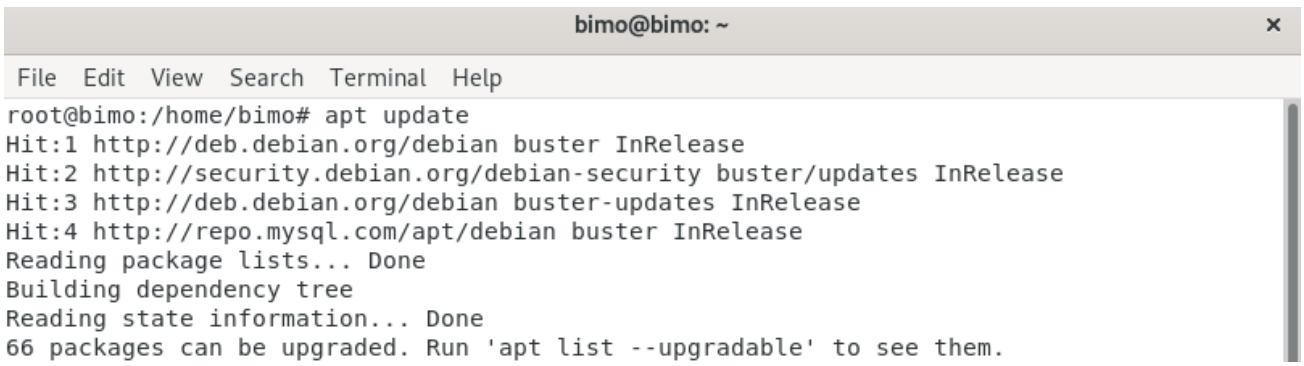
Hidupkan adapter enp0s3 dan enp0s8.

$sudo ifup enp0s3

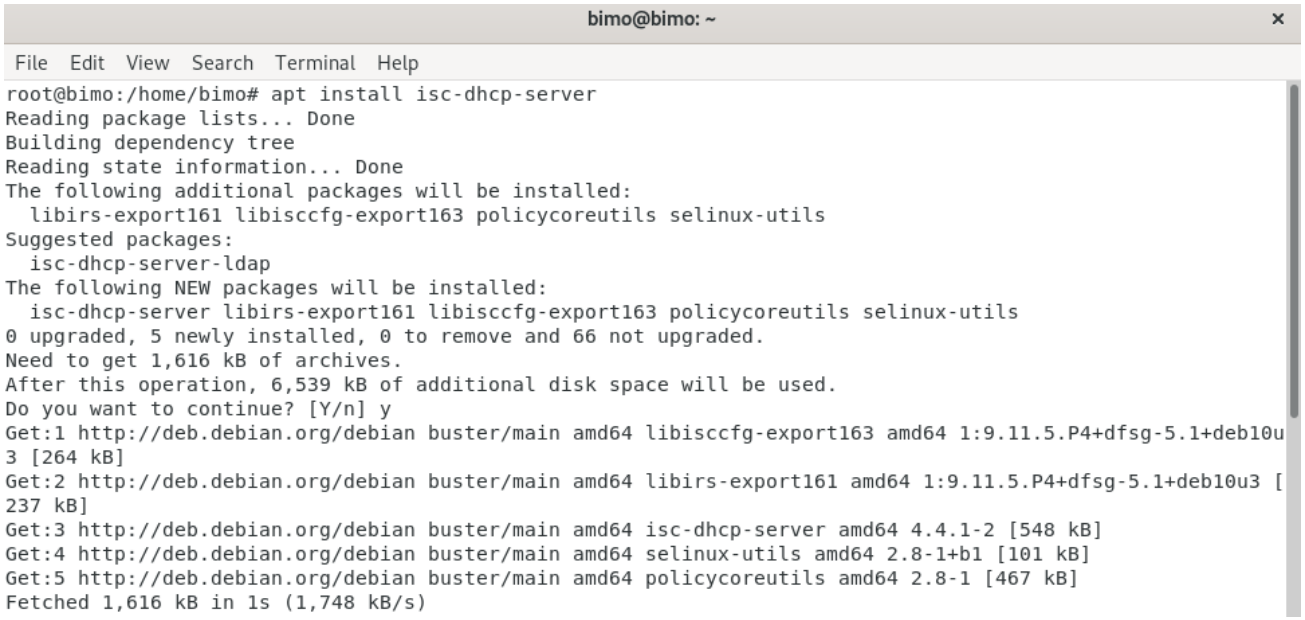
$sudo ifup enp0s8



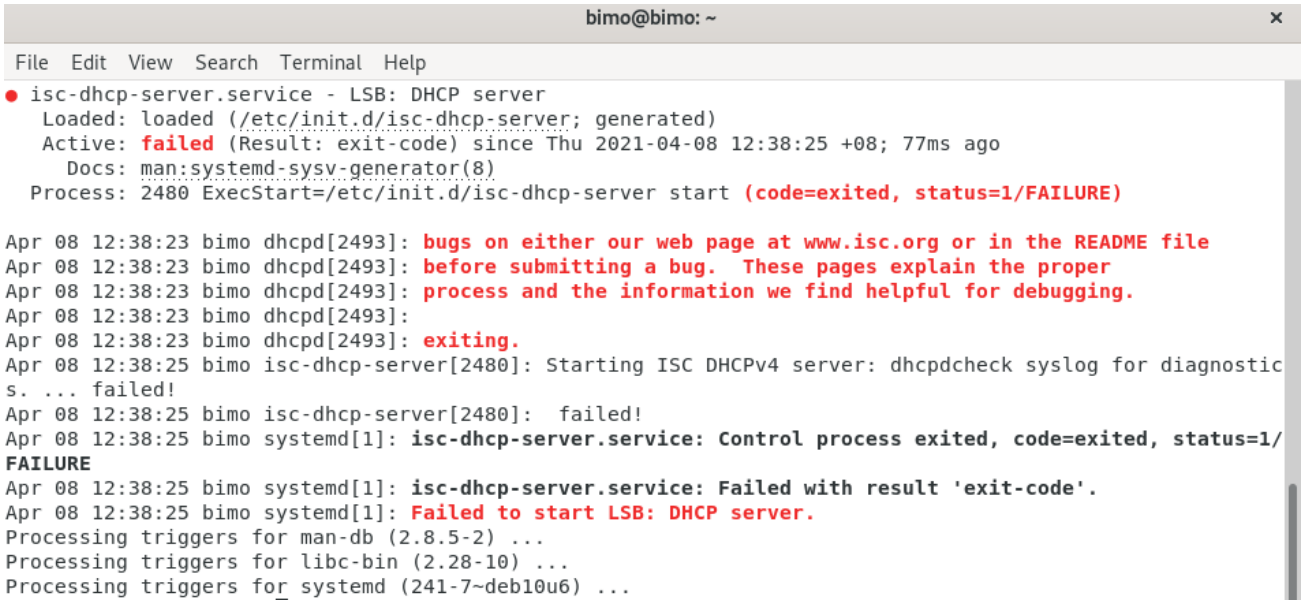
#apt update



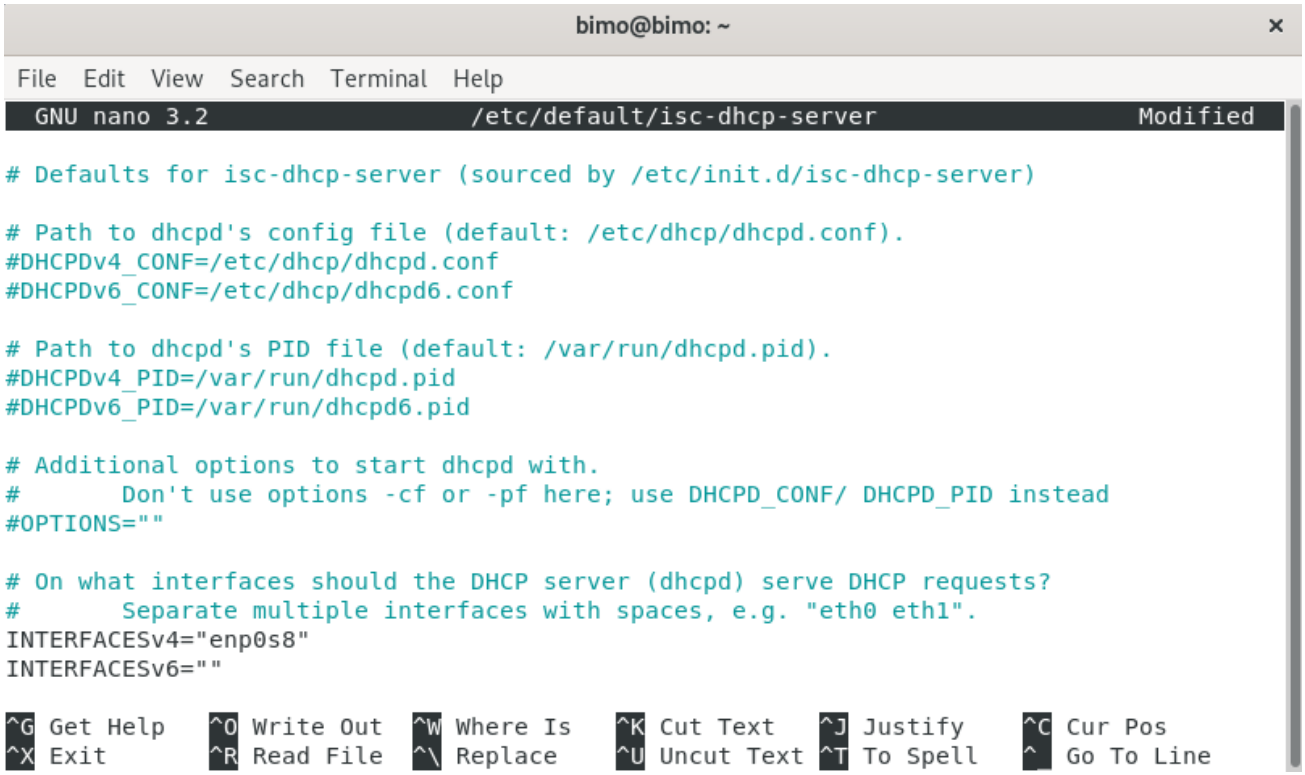
4. Instalasi paket program DHCP.
   #apt install isc-dhcp-server



Pada awal instalasi, service DHCP pasti mengalami failure karena DHCP belum terkonfigurasi.

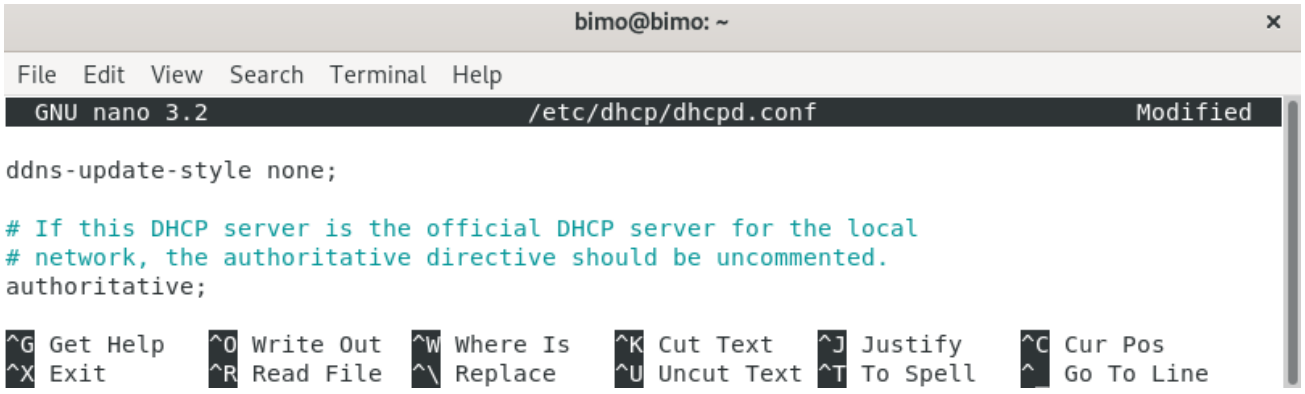


Memilih adapter mana yang ingin digunakan untuk dhcp server. Saya memilih enp0s8.
#nano /etc/default/isc-dhcp-server



5. Konfigurasi /etc/dhcp3/dhcpd.conf. Atur subnet sesuai jaringan anda.
#nano /etc/dhcp/dhcpd.conf

   a. Uncommand line “authoritative”;



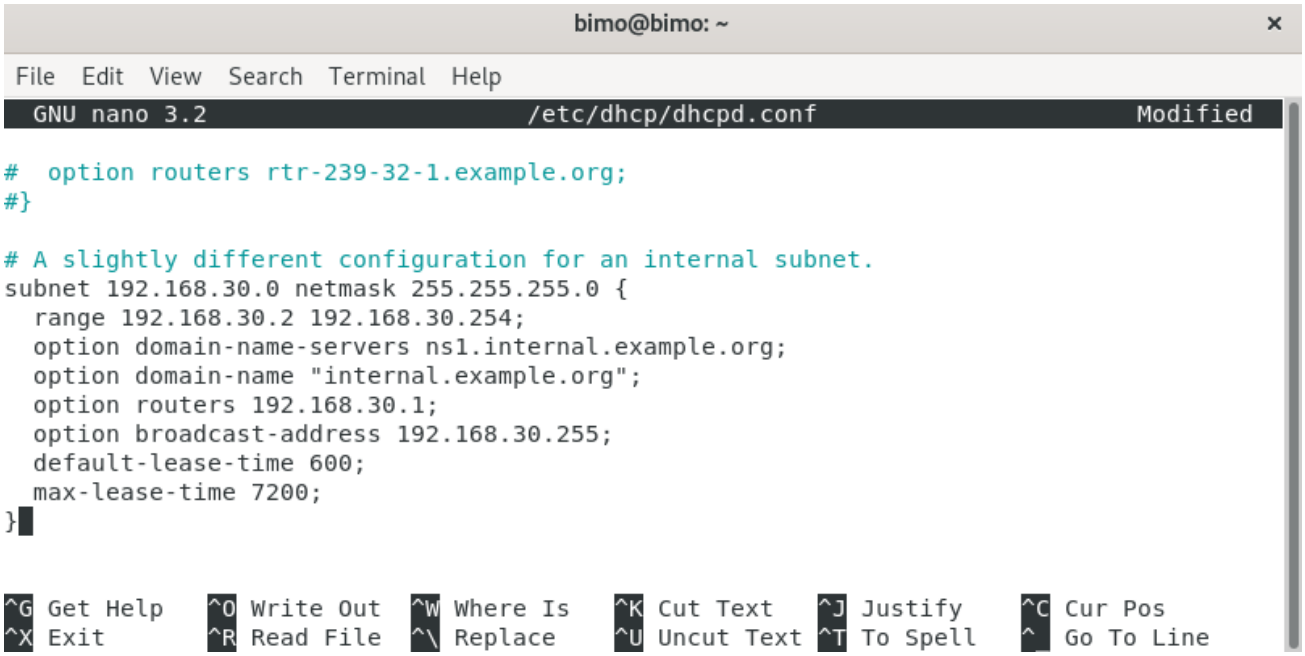
   b. Konfigurasi untuk DHCP server

Data DHCP server pada user bimo.

IP	: 192.168.30.1
Subnet	: 192.168.30.1
Netmask	: 255.255.255.0
Range	: 192.168.30.1 192.168.30.254
Router	: 192.168.30.1
Broadcast Address	: 192.168.30.255

Data konfigurasi

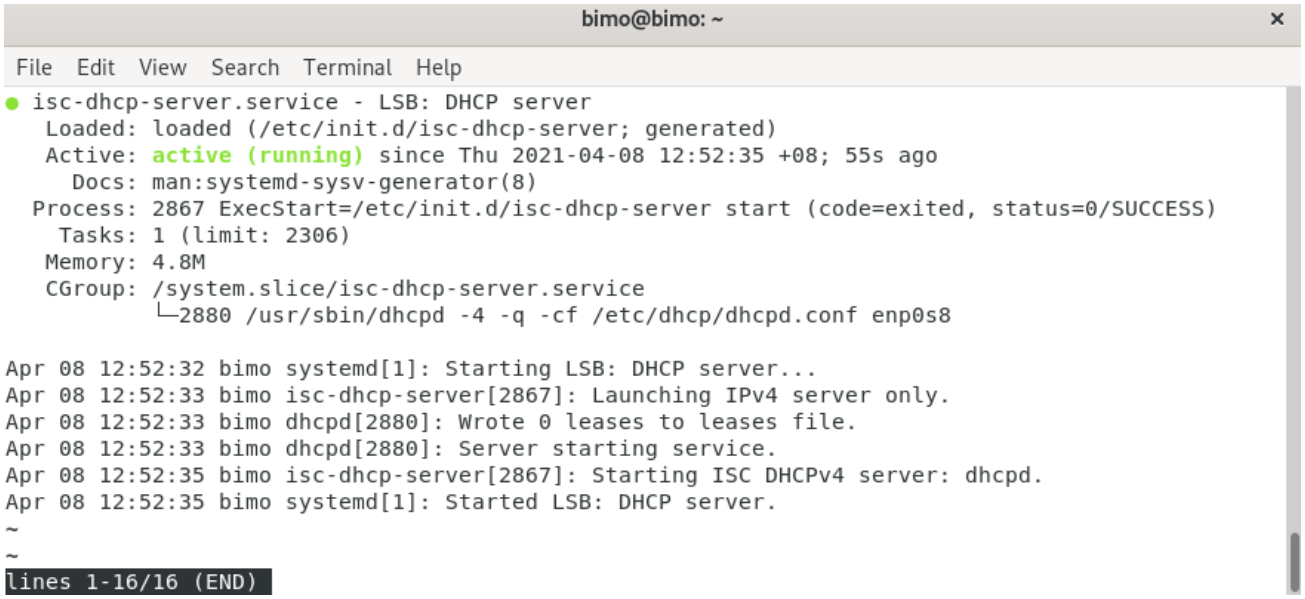
Subnet	: 192.168.30.0
Netmask	: 255.255.255.0
Range	: 192.168.30.2 192.168.30.255
Router	: 192.168.30.1
Broadcast Address	: 192.168.30.255



6. Restart DHCP service setiap ada perubahan konfigurasi.

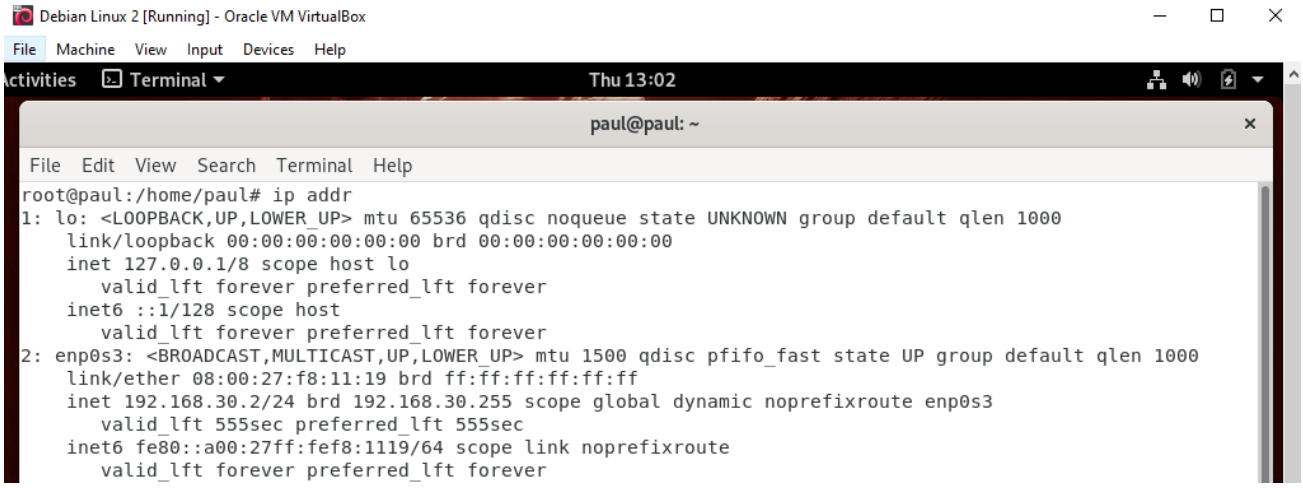
#systemctl restart isc-dhcp-server.service

#systemctl status isc-dhcp-server.service

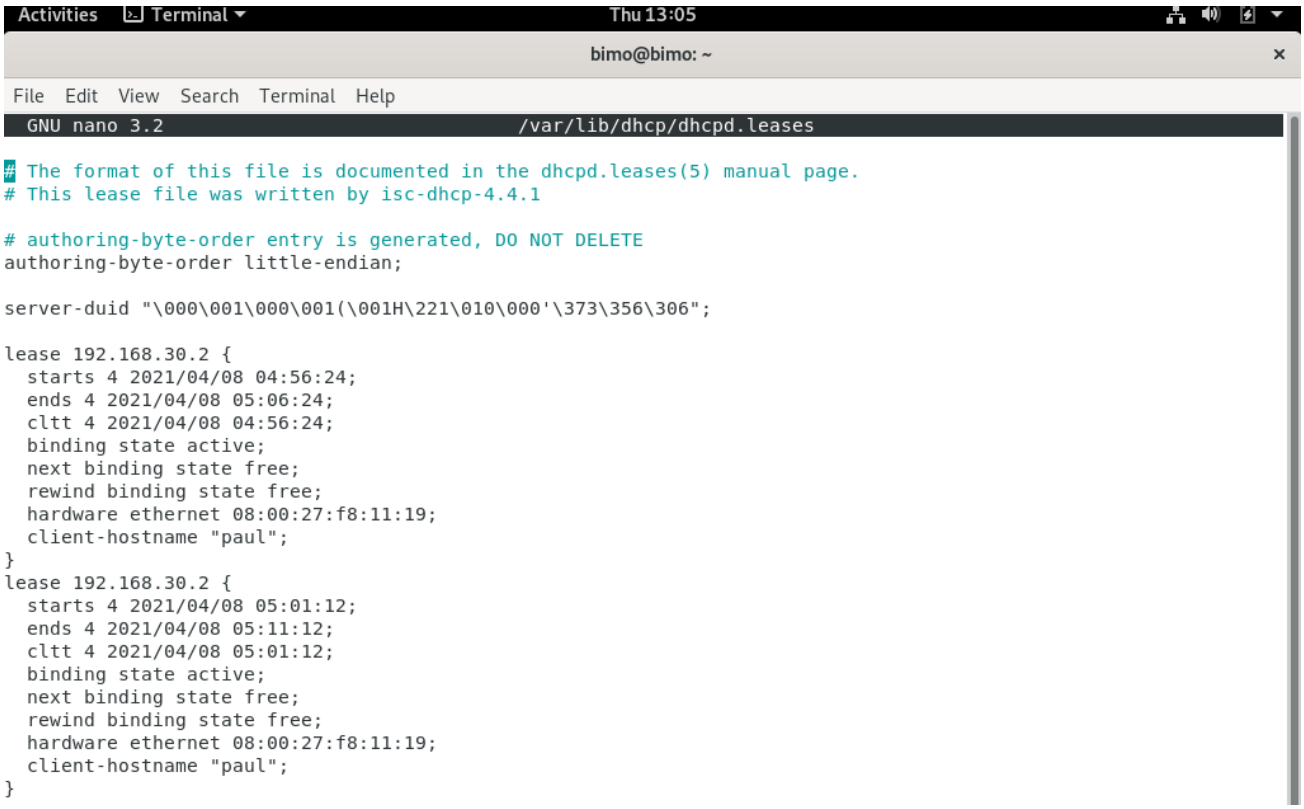


7. Buka PC client dan cek IP Addressnya.
   #ip addr

   DHCP server akan mengalokasikan salah satu IP dari range 192.168.30.2 sampai 192.168.30.255. Pada percobaan, IP PC client adalah 192.168.30.2/24.



   Untuk melihat hasil client yang terkoneksi dengan DHCP server, bisa dilihat dari file /var/lib/dhcp/dhcpd.leases pada PC server.
   #nano /var/lib/dhcp/dhcpd.leases



   PC client sudah terkoneksi dengan PC server melalui DHCP server.